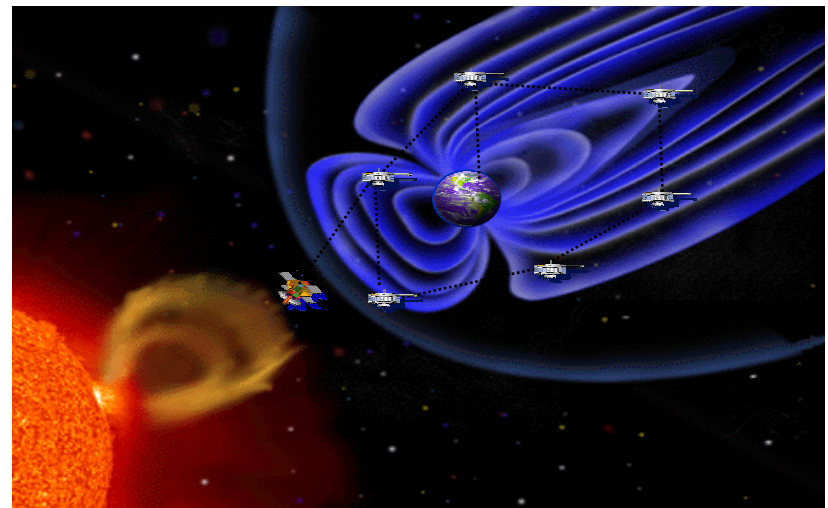
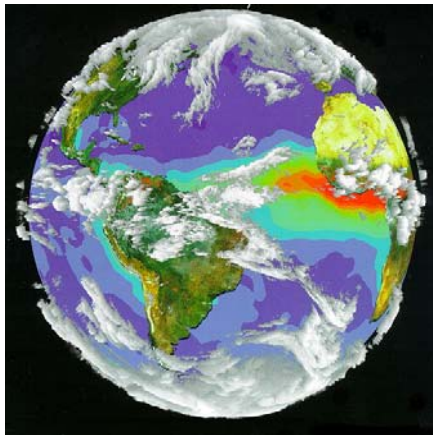


# Information Systems Division / 580

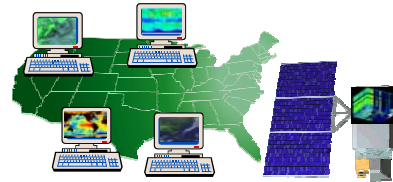


*Advanced flight and scientific information systems supporting the execution and analysis of scientific measurements and observations for Earth & Space Sciences and Exploration.*



## ALL HANDS

Nov.8, 2005

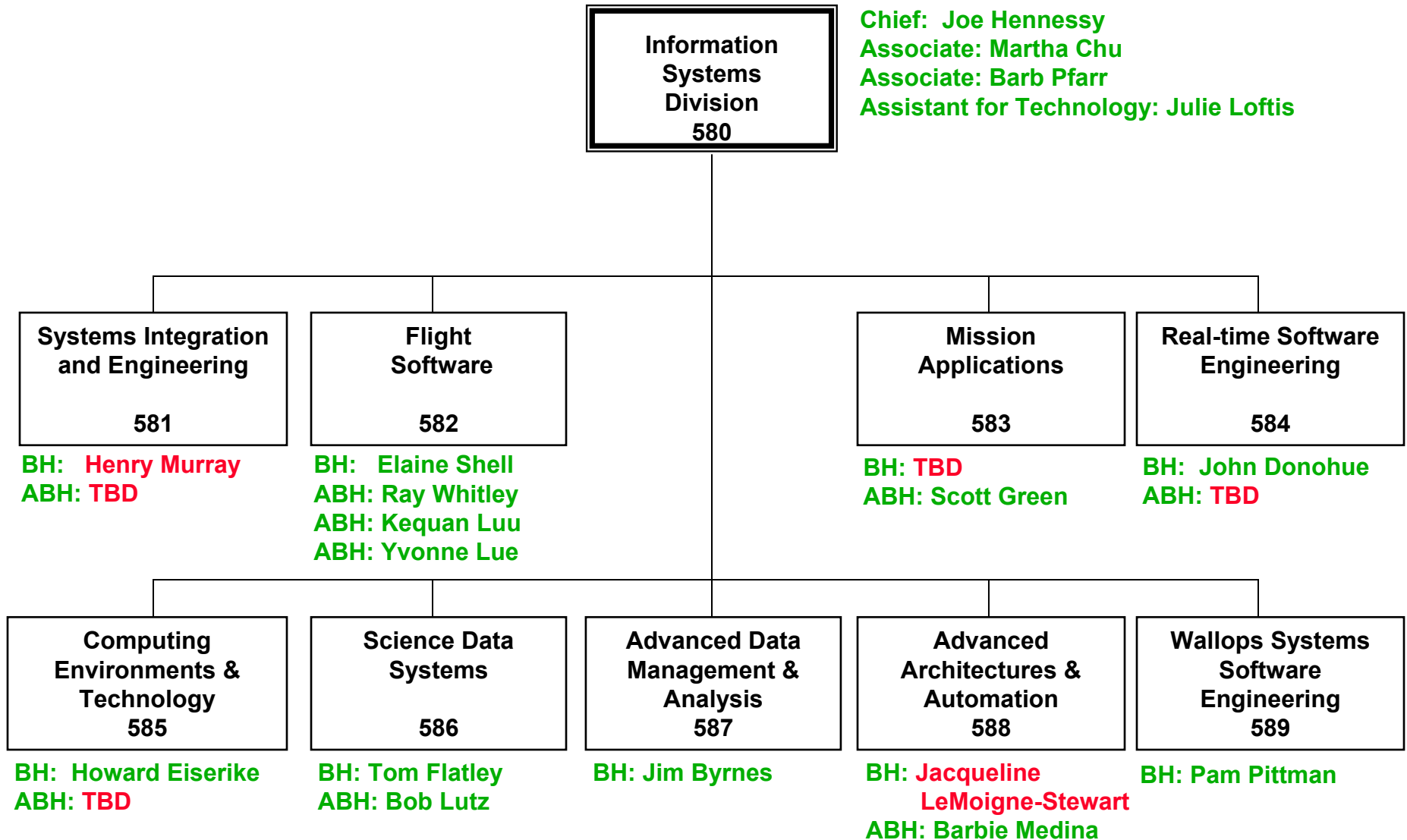


**Interoperable Models**

# Agenda

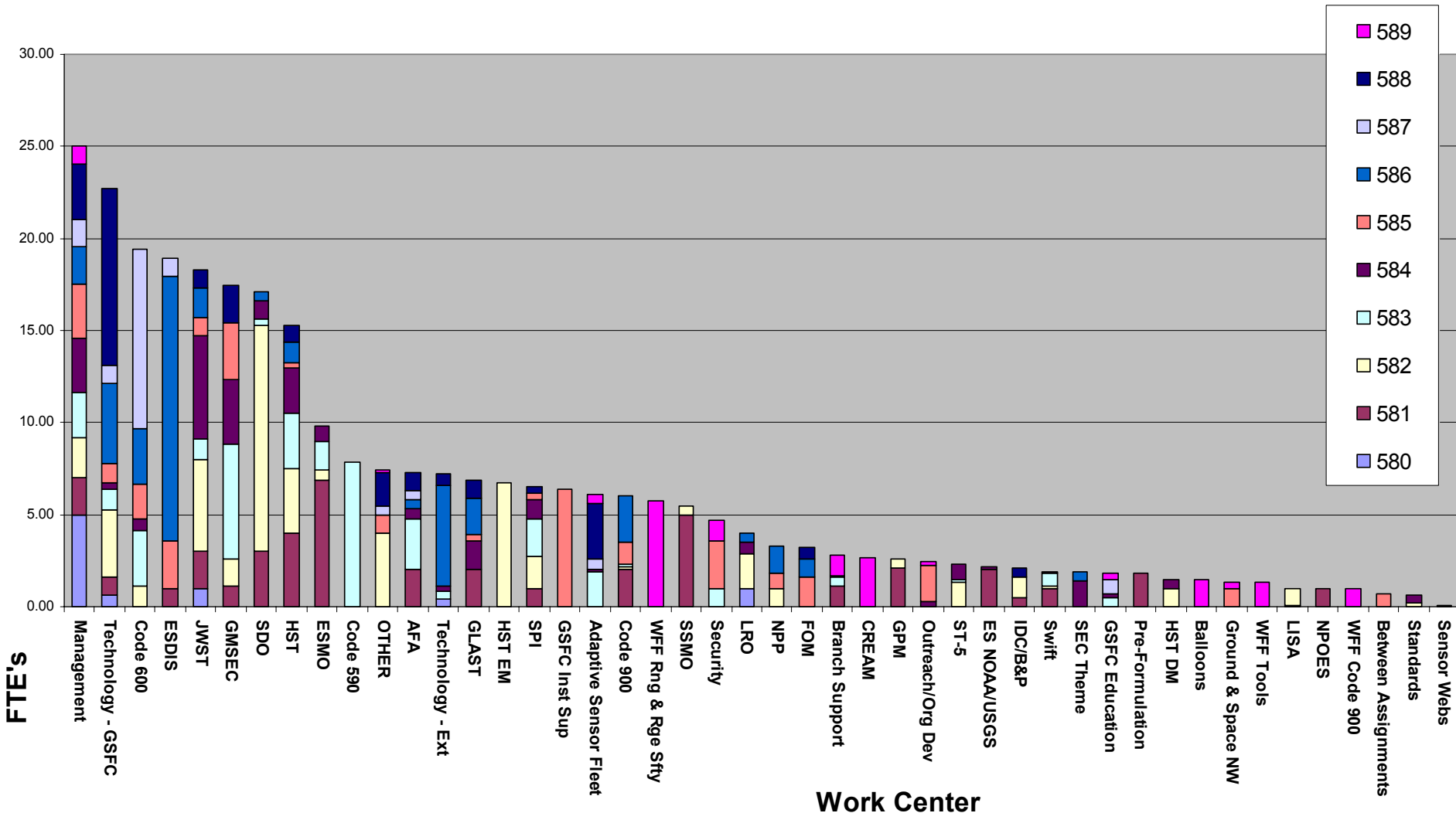
- |            |  |              |
|------------|--|--------------|
| ❑ 9:00 AM  | State of the Division                            | J. Hennessy  |
|            | Overview on the New PMS                          |              |
| ❑ 9:40 AM  | Our Current Technology Climate                   | J. Loftis    |
| ❑ 10:00 AM | Needs/Opportunities for Science Data Utilization | S. Habib/610 |
| ❑ 10:30 AM | State of the Exploration Initiative at ISD       | D. Smith     |

# Information Systems Division (ISD/580) Organization



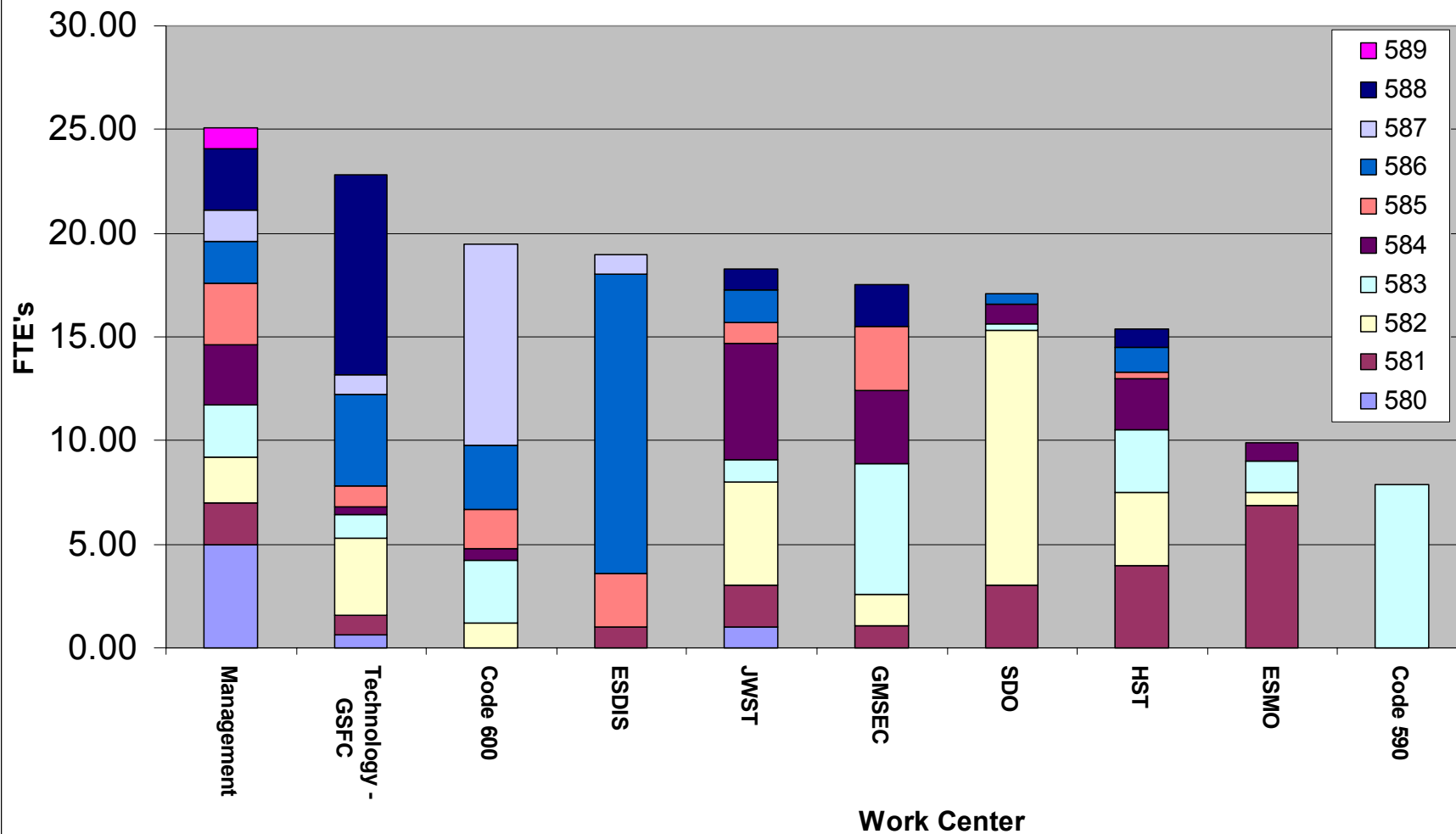
# Baseline 200507

## Total FTE's Per Work Center By Branch 200507



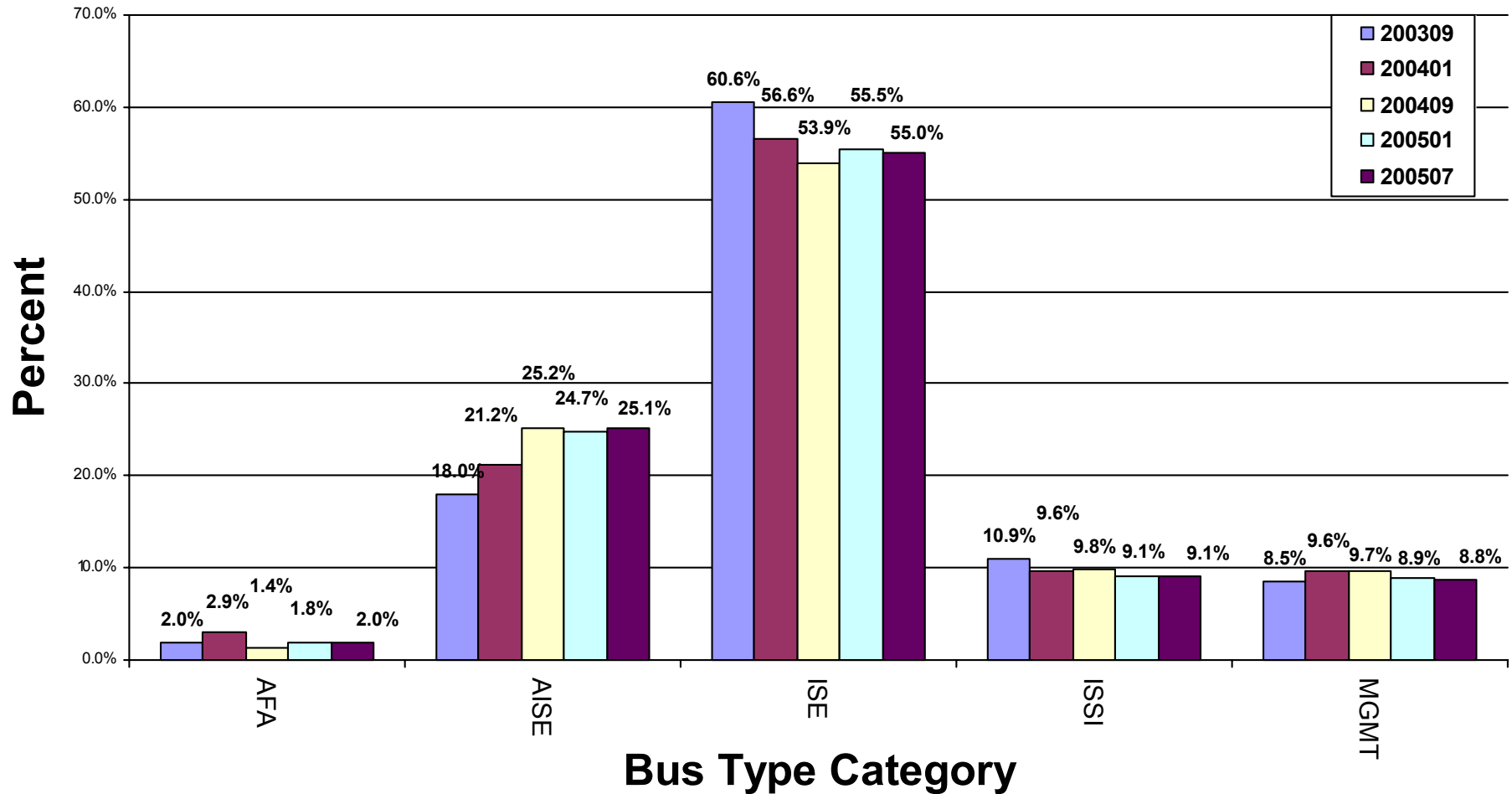
# Baseline 200507

## Total FTE's Per Work Center By Branch 200507 (TOP 10)



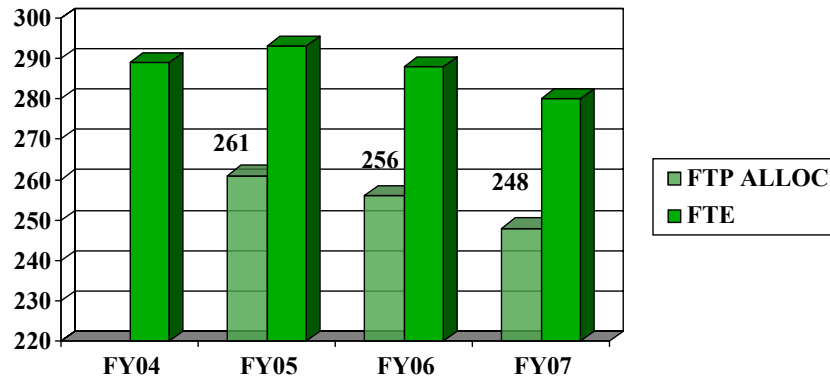
# Baseline Comparison (through 200507)

## Business Types as a Percent of ISD Total FTE's/Population



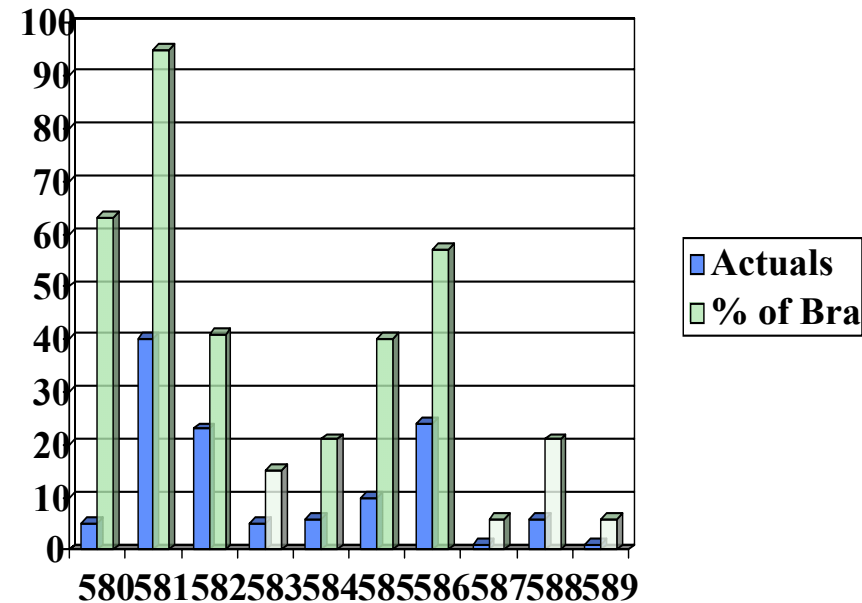
# ISD Ceiling & Senior Positions Look

## ISD FTP & FTE Levels



	04	05	06	07
FTP ALLOC	N/A	270	256	248
EOY	N/A	261	-	-
OTFTP	N/A	32	32	32
FTE	289	293	288	280

## Senior Positions FY05



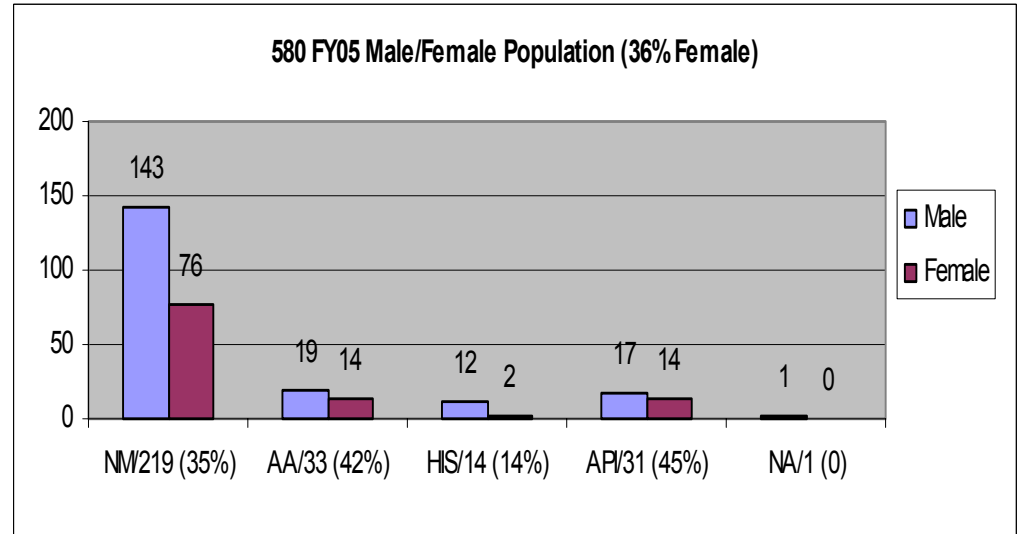
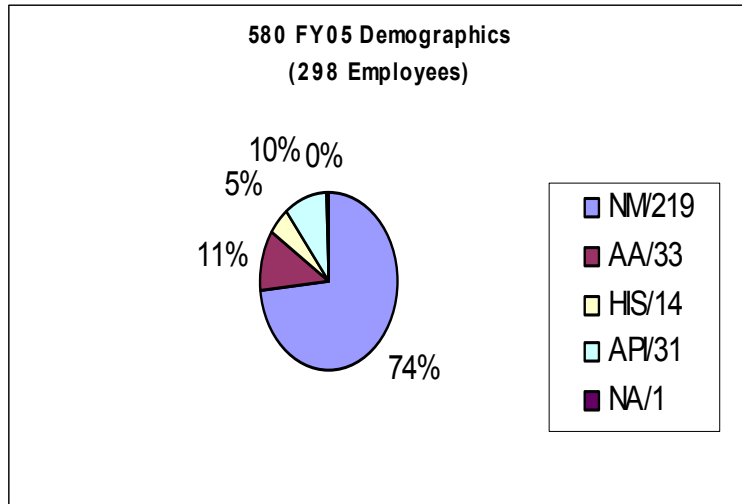
**84 GS-14s and 49 GS-15s,  
including 13 Class Action Augments.**

## FY05 Hire Actuals into 580

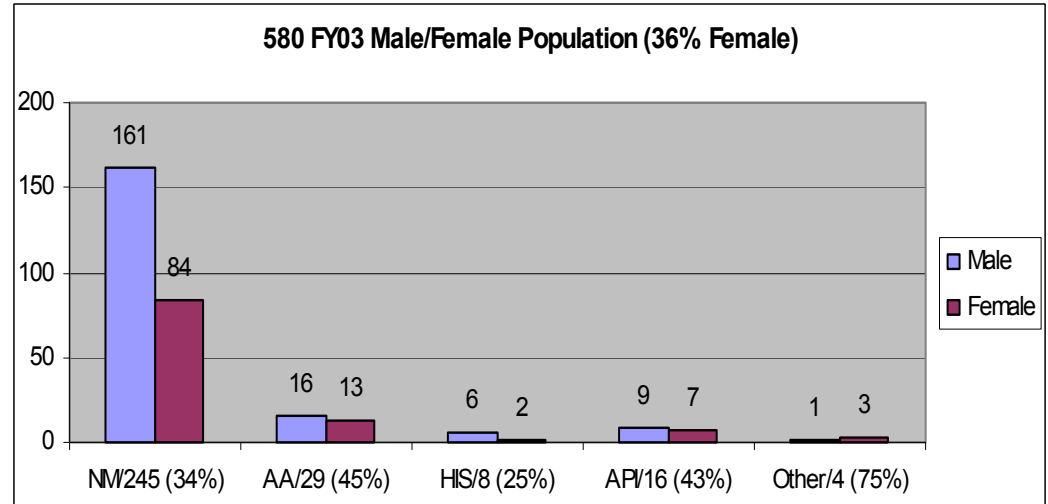
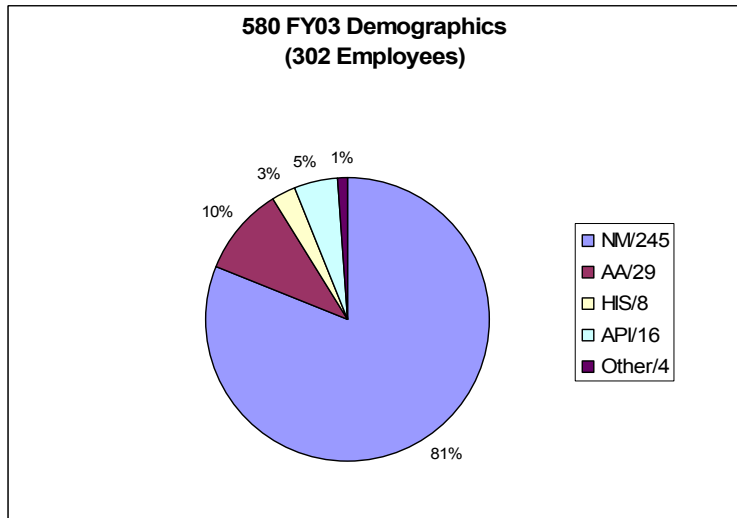
<b>Code</b>	<b>Non FOut FTP</b>	<b>Coop Cnv FTP</b>	<b>FOut FTP</b>	<b>Corp. FOs</b>	<b>Project Funded Terms</b>	
580	0	0	0	0	0	
581	1	0	0	0	0	
582	1	0	1	1	2	
583	0	0	0	0	0	
584	0	0	0	1	0	
585	0	0	0	0	0	
586	1	0	0	0	0	
587	0	1	0	0	0	
588	2	1	0	1	0	
589	0	0	1	0	0	
<b>Totals:</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>14</b>



## 580 FY05 Demographics



## 580 FY03 Demographics



**A few auxiliary observations on accomplishments  
and some concerns ....**

**OUR ACCOMPLISHMENTS IN MISSION  
SUPPORT CONTINUE TO BE OUTSTANDING  
... for JWST & ISIM, SDO, ST-5, GLAST & ACD,  
LRO & LOLA, CREAM, ESDIS, HST, GPM,  
SSMO & ESMO, GMSEC/CFS, ...**

**and for the real effort/progress in GSFC's SPI.**

**My THANKS to each one of you !!**

# Leadership in Software/Data System Areas Outside of Direct Project Support

- ❑ ISD was a recognized team member on both awards for the 2005 NASA Software of the Year, partnering with JPL on the Autonomous Sciencecraft Experiment prototyped on EO-1 and with Code 600's Land Information System.
- ❑ Led NASA's open architecture in GMSEC/CFS focused through EI's C3I agency team.
- ❑ Advanced IP in space through near-Earth and lunar flatsat demonstrations. Also, ISD & ESD engineers teamed with Cisco under a Space Act Agreement to develop a radiation-hard router for space applications.
- ❑ The ISD led the AETD Space Network Demand Access Service (DAS) Independent Review Team.
- ❑ ISD was asked to assist the NASA Chief Engineer's Office with CMMI pre-assessments for Systems Engineering across the agency.
- ❑ ISD leads/plays significant conference roles in IEEE/NASA Software Engineering Workshop, Formal Approaches to Agent Based Systems, Radical Agent Concepts, Symposium on Applications of Formal Methods , Space Internet Workshop, and others.
- ❑ Created and lead the NASA journal 'Innovations in Systems & Software Engineering'.
- ❑ ISD participates in yearly GSFC-JPL Quality Mission Software Workshops to exchange information and best practices.
- ❑ ISD organized the NASA GSFC Grid Workshop, to enable GSFC organizations and affiliated contractors and universities to discuss their current data Grid-related technologies (distributed computing as well as distributed data).
- ❑ ISD supported the demonstration of "21st Century Science" over the National Lambda Rail, a 10 giga-bit optical network between GSFC and Scripps Institution of Oceanography (SIO).
- ❑ Chaired the IFM Funds Control Tiger Team, which resulted in the development of the Funds Control System to address a key shortfall of IFMP.

## Some Notes of Concern ...

- ❑ IRAD/CC late & deep cuts have dislocated capable/quality people to Transition/Traditional until direct charges negotiated. Valuable technology efforts suspended/threatened (ASF, cFE,...).  
Last several years or more show a declining budget in data systems R&D investments, especially harsh in a full cost CS environment.
- ❑ Science Labs budget impacts are dislocating analysis support and promoting the use of more experienced people.  
Overall full cost is moving some customers away from coops and fresh outs.
- ❑ FY06 “over capacity” surprise when already into FY06.
- ❑ Viability of planned ISD FTP reductions is a risk to be monitored.
- ❑ Center’s IT budget is a minimal one at best. ISD’s IT budget is both our IT and Tech Equipment budget, but reflects the minimal IT only amount.
- ❑ Full cost is focusing attention on staff charging overhead, especially ANW and Transition areas, as well as inappropriate Traditional charges. If in overhead, you need to get onto funded Work !

Still not a bleak as industry’s “work at will”.

# **Managing Human Capital at GSFC: Fairness, Transparency, and Accountability**

- extract on promotion process only

## **Accretion Promotion Validated Criteria ...**

visit the OHR web site for the official materials  
on this and many other important topics !

October 2005

Class Action Implementation Team

# Background

- ❑ Class Action Settlement Agreement required a review of Goddard's Performance Management System (PMS) conducted by Independent Expert - Personnel Decisions Research Institute, Inc. (PDRI)
  - ◆ Performance Appraisals
  - ◆ Accretion and Career Ladder Promotion Processes
  - ◆ Awards
  - ◆ Training (with emphasis on leadership training)

*The objective of the performance management systems review was to produce and implement a revised and objective, non-discriminatory performance management system*

# New Validated Accretion Criteria

- ❑ PDRI Recommendation #13: “PDRI recommends that job analyses be conducted to determine the critical dimensions or areas in which candidates will be asked to provide.....”
  
- ❑ Perform Content Validation Study
  - ◆ Objective: Demonstrate that critical work activities performed (as rated by both incumbents to the positions and their supervisors) are related to the accretion promotion criteria
  - ◆ GSFC scientists and engineers were involved in Study at multiple stages including:
    - Responding to questionnaires on importance of various work tasks
    - Piloting revised promotion packages
    - Linking specific work tasks to criteria statements
  
- ❑ Result: Validated Criteria for 14-15 S&Es

# Accretion vs. Competitive Placement Promotion

## ACCRETION

- ❑ Employee is at FPL
- ❑ Driven by employee's impact on the position
- ❑ Based on the person not the position
- ❑ Must meet all promotion criteria
- ❑ Must already be working at the next higher grade level on a continual basis with the expectation that the work will continue as long as that person holds that position
- ❑ When position vacated, grade reverts back to previous grade level

## COMPETITIVE

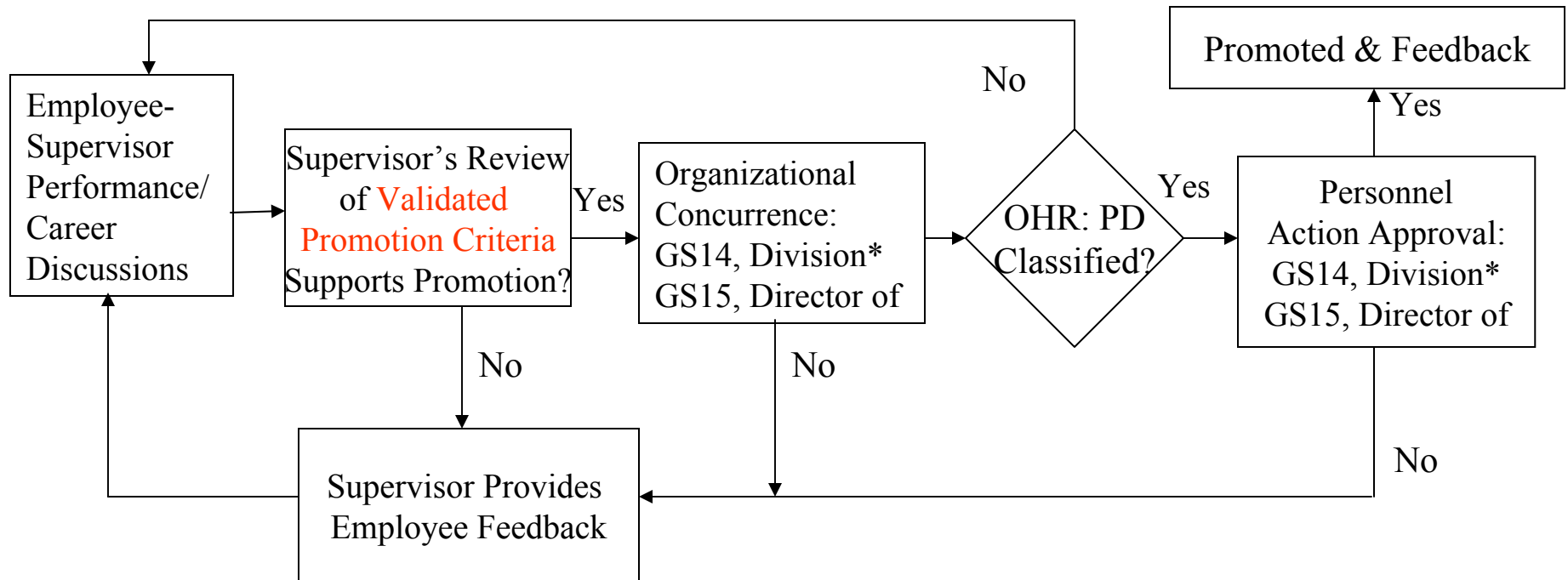
- ❑ Employees compete for higher FPL
- ❑ FPL established based on the position with classified PDs
- ❑ Position/FPL survives departure of individual
- ❑ Candidates must show that they have 1 year of specialized experience at the next lower grade
- ❑ Employee is not to be expected to already be performing at higher level prior to selection



# Promotion Process – Nov. 2005

## GS14/15 S&E Accretions

### Standard Process



\* Or Equivalent

\*\*Note: Supervisors are encouraged to continually consult with their Human Resources Specialist regarding the level of work that is being reviewed.

# Summary of Features for New S&E Accretion Process

- ◆ Validated Accretion Criteria for 14 & 15 Scientists & Engineers
- ◆ All Criteria must be demonstrated within last 3 years
- ◆ Standardized structured information provided via Accretion Promotion Package
- ◆ Authority for Approval delegated to local organization
- ◆ No Peer Panels
- ◆ Promotion Process Not Resource Limited
- ◆ Contingent on Position Description classification at higher grade

# **Promotion Process – Nov. 2005**

## **GS14/15 Accretions**

- ❑ Accretion Promotion Package is a formatted write-up by the supervisor with input from the employee addressing the employee's accomplishments in satisfying the appropriate promotion criteria
  
- ❑ Decision to Evaluate/Submit Accretion Promotion Package for Organizational Concurrence initiated by either:
  - ◆ Supervisor
  
  - ◆ Time In Grade Trigger
    - Beginning at average time in grade of promoted employees, thereafter, at employee request, not to exceed once per year

## Time in Grade Mechanism

- ❑ GSFC calculated the average time in grade for S&Es before accretion promotion – post Phase 2 Promotion Review Process – 6 years
- ❑ Supervisor is responsible for identifying employees who are eligible for review
- ❑ Time frame for completion of review - 30 days